Amendments to the claims

1. (Currently amended) The method of obtaining information via the Internet from each of a plurality of diverse data resources having different characteristics in response to a request from a requesting application program which comprises, in combination, the steps of:

storing a separate service description for each given data resource in a database, said service description including:

an Internet address to which an output information request directed to said given data resource may be transmitted,

a specification of the nature of input information to be supplied by said requesting ~~client~~ application program, and

a description of the nature of output information to be returned to said requesting ~~client~~ application program in response to said output information request,

establishing an application program interface for accepting service requests in standard form from said requesting application program,

issuing a service request from said requesting application program to said application program interface, said service request identifying a particular resource, and

executing a service interface program in response to said service request, said service interface program performing the steps of:

obtaining the particular service description for said particular resource from said database,

obtaining ~~said~~ input information conforming to said specification contained in said particular service description from said requesting application program,

producing an information request message that includes said input information,

transmitting said information request message to the Internet address included in said particular service description thereby supplying said input information to said particular resource, and

routing output information provided by said particular resource in response to said information request to said requesting application program.

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2. (previously amended) The method as set forth in claim 1 wherein said step of storing a separate service description for each given data resource comprises registration means for accepting service description information in a predetermined format.

3. (original) The method as set forth in claim 2 wherein said predetermined format is the Extensible Markup Language.

4. (previously amended) The method as set forth in claim 3 wherein said service description as expressed in Extensible Markup Language is validated against a Service Descriptor schema which specifies the content of said service description before said service description is stored in said database.

5. (previously amended) The method as set forth in claim 1 wherein said service description as stored in said database further comprises contact information specifying a person or entity supplying the resource described in said service description.

6. (previously amended) The method as set forth in claim 1 wherein said service description as stored in said database further comprises test information consisting of a fixed input value and a fixed output value which enables said service interface program to perform automatic testing of the described resource by sending said fixed input value to said resource and comparing the resulting output from said resource with said fixed output value.

7. (previously amended) The method as set forth in claim 1 wherein said service description as stored in said database further comprises security information for ensuring that a request for output information originates from an authorized source before that request is satisfied.

8. (Currently amended) Apparatus for processing a request for information from a specified resource which comprises, in combination,

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a database for storing a service description for each of a plurality of different resources, said service description comprising an input processing specification, an Internet resource address, and an output processing specification,

an executing application program for issuing said request for information from said specified resource, and

an interface program for receiving said request from said executing application program via a standard application program interface, said interface program including:

means for retrieving the particular service description for said specified resource from said database,

means for processing input data obtained from said executing application program in accordance with the input processing specification contained in said particular service description for said specified resource to produce a reformatted request,

means for transmitting said reformatted request to the Internet resource address contained in said particular service description for said specified resource;

means for receiving a raw response via the Internet from said specified resource in response to said reformatted request,

means for processing said raw response in accordance with said output processing specification contained in said particular service description for said specified resource to produce a reformatted response, and

means for transmitting said reformatted response to said executing application program.

9. (original) Apparatus as set forth in claim 8 further including registration means for accepting descriptive data from a remote location and for processing said descriptive data to form said service description stored in said database.

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10. (original) Apparatus as set forth in claim 9 wherein in said input processing specification includes the designation of an input adaptor program which, when executed, performs at least some of the processing of said request to produce said reformatted request.

11. (previously amended) Apparatus as set forth in claim 10 wherein said output processing specification includes the designation of an output adaptor program which, when executed, performs at least some of the processing of said raw response to produce said reformatted response.

12. (previously amended) The method of obtaining information via the Internet from each of a plurality of diverse data resources having different characteristics which comprises, in combination, the steps of:

storing a separate service description for each given data resource in a database, said service description including:

an Internet address to which an output information request directed to said given data resource may be transmitted,

an input specification of the nature of input processing to be performed on each request before being supplied to said given data resource,

an output specification of the nature of output processing to be performed on each response from a given data resource before that response is returned to a requesting application program, and

establishing an application program interface for accepting service requests in standard form from executing application programs,

receiving a service request identifying a particular resource from an executing application program via said application program interface and

executing a service interface program in response to said service request, said service interface program performing the steps of:

obtaining the particular service description for said particular resource from said database,

processing said service request in accordance with said input specification contained in said particular service description to produce an output information request,

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transmitting said output information request to said Internet address specified in said particular service description,

receiving raw output data in response to said output information request,

processing said raw output data in accordance with said output specification to produce reformatted output information, and

transmitting said reformatted output to said executing application program.

13. (original) The method as set forth in claim 12 wherein said step of storing a separate service description or each given data resource comprises registration means for accepting service description information in a predetermined format.

14. (original) The method as set forth in claim 13 wherein said predetermined format is the Extensible Markup Language.

15. (previously amended) The method as set forth in claim 14 wherein said service description as expressed in Extensible Markup Language is validated against a schema which specifies the content of said service description before each of said service descriptions is stored in said database.

16. (previously amended) The method as set forth in claim 12 wherein said service description as stored in said database further comprises contact information specifying a person or entity supplying the resource described in said service description.

17. (previously amended) The method as set forth in claim 12 wherein said service description as stored in said database further comprises test information consisting of at least one fixed input value and at least one fixed output value which enable said service interface program to perform automatic testing of the described resource by sending said fixed input value to said resource and comparing the resulting output from said resource with said fixed output value.

18. (previously amended) The method as set forth in claim 12 wherein said service description as stored in said database further comprises security information for ensuring that a

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request for output information originates from an authorized source before that request is satisfied.

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